REMARKS

Claims 1-20 were pending and rejected in the above-identified patent application. Claims 1-4, 8-11 and 17-20 are being amended. Claims 1-20 remain pending. Reconsideration of the claims as amended is respectfully requested.

Before discussing the rejections, a brief review of an embodiment of the invention may be helpful. A system architecture in accordance with an embodiment of the present invention includes a remote copy system comprising a primary storage system and a secondary storage system, both of which are connected via a plurality of networks. The system enables selecting one of the remote copy networks per a user defined policy. Users can input a desired policy to the primary storage system. When the primary storage system sends data to the secondary storage system, it selects one of the networks based on the policy. The policy includes, for example, restrictions and/or conditions.

In paragraphs 2-10, the Examiner rejected claims 10-16 under 35 U.S.C. 102 as unpatentable over Venkatesh et al. (U.S. 5974,503: hereinafter Venkatesh). Venkatesh discloses a media file server system comprising stream servers and RAID storage systems. The major tasks of the file server system is to receive data (e.g., video stream data) from the network and to store it to disk.

Claim 10, as amended, reads,

> 10. (Currently amended) A method for minimizing cost of network access by a storage apparatus, said method comprising:
> storing data in a primary storage volume;
> specifying a first network to be used for transferring remote mirror copy data from the primary storage volume to a secondary storage volume;
> specifying a constraint for said first network;
> specifying a second network to be used for transferring the remote mirror copy data from the primary storage volume to the secondary storage volume; and
> transferring said remote mirror copy data using said first network when conditions in said first network are in accordance with said constraint, otherwise transferring said remote mirror copy data using said second network.

Venkatesh doesn't mention remote data mirroring between storage systems. Further, referring to col. 14, L. 28-67, the examiner asserts that Venkatesh discloses the user defined policy. Venkatesh discloses the concept of an admission control policy so that each task can be scheduled without interfering with other tasks. However, these tasks are not related to remote mirror copying.

In paragraphs 11-21, the Examiner rejected claims 1-9 and 17-20 under 35 U.S.C. 103(a) as being obvious over Beardsley et al. (U.S. 5,680,580: hereinafter Beardsley) in view of Venkatesh.

Beardsley discloses a remote copy system comprising a primary storage controller and a secondary storage controller. Both the primary and secondary storage controllers have a plurality of ports to be used for establishing paths between the primary and secondary storage controllers. When the primary storage controller receives write I/O request, the write data is transferred to the secondary storage controller using a first available path.

The examiner refers to col. 10, L. 48-57, as it mentions "role." Col. 10 L. 48-57 states,

> "Modifying the link-level facilities to have an ability to dynamically (electronically versus manually) assume either the role of channel link-level facility or control unit link-level facility provides flexibility and reduces a number of required communication links as described herein. When link-level facilities are allowed to assume the dual roles it becomes necessary to determine, within the ESCON facility, which role each link-level facility is assuming. The role that a link-level facility assumes is determined on a logical path basis. Establishing logical paths between storage controllers is accomplished with a combination of an Establish Logical Path (ELP) link-level frame and a device level control frame for indicating that the logical path supports peer-to-peer protocols."

The "role" in Beardsley indicates that the port of the storage system can be used as either the channel link-level facility or the control link-level facility. When a port is configured as the control link-level facility, it is used to connect with the host. When a port is configured as the channel link-level facility, it is used to connect the primary storage system with the secondary storage system.

Claim 1, as amended, now reads,

1. A storage system apparatus, comprising:

a first storage system for storing data, and a second storage system for storing a remote mirror copy of the data;

a plurality of ports, providing switch-able connection from said first storage system to said second storage system; and

a processor;

wherein said processor selects at least one of said plurality of ports to send data from the first storage system to the second storage system, said selection based upon a comparison of at least one condition in said plurality of networks against at least one user provided policy.

Claim 17, as amended, now reads,

17. (Original) A method for selecting a network, said method comprising:

providing primary storage for storing data;

providing secondary storage for storing a copy of the data, the secondary storage being coupled to the primary storage via a plurality of networks;

monitoring at least one condition in the plurality of networks;

comparing said at least one condition against at least one user provided policy; and

selecting at least one of a plurality of ports connected to said plurality of networks in accordance with said comparison.

The policy as claimed in independent claims 1 and 17 selects the network for transferring the data. The policy does not change the role of the network from a control link-level facility to the channel link-level facility. Further, as claimed in claim 1 and thus dependent claims 2-9 and in claim 17 and thus dependent claims 18-20, neither Venkatesh nor Beardsley mentions that the policy can be defined by the user. Accordingly, for at least these reasons, claims 1-9 and 17-20 are patentable over Beardsley and Venkatesh.

Respectfully submitted,

By _____
Marc A. Sockol
Attorney for Applicants
Reg. No. 40,823

Dated: October 15, 2004
Squire, Sanders & Dempsey L.L.P.
600 Hansen Way
Palo Alto, CA 94304-1043
Telephone (650) 856-6500
Facsimile (650) 843-8777

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on
Date: October 15, 2004 By: _____
Eileen Janikowski